

REMARKS

After entry of this amendment, Claims 1, 15, and 24-34 will be pending. Applicant respectfully requests reconsideration of all claims in view of the above amendments and accompanying remarks.

Drawings

The Examiner objected to the drawings on various grounds. Applicant has amended the drawings by way of the accompanying letter to the official draftsman. Reconsideration is respectfully requested.

Claim Objections

Claims 2-14 have been corrected to indicate that they have been cancelled according to the Examiner's helpful suggestions.

Rejection of Claim 27 under 35 USC Section 112.

The Examiner rejects Claim 27 based on 35 USC § 112. Applicant has amended Claim 27 based on the Examiner's helpful suggestions. Accordingly, Applicant respectfully requests reconsideration.

Rejection of Claims 1, 15-23, 26 and 30-34 under 35 U.S.C. §102

The Examiner rejected Claims 1, 15-23, 26 and 30-34 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,645,301 ("Alvis"). Alvis, as shown in Figure 3, discloses flexible wedge members that can be introduced into curved channels in a circumferential direction of one of the sealing elements. In response to this insertion, the sealing element expands to effectuate a seal between the first and second element. Reviewing Alvis, it is clear that this reference teaches an entirely different idea from that described in the present invention. Alvis describes the use of flexible wedge members inserted along a non-planar direction to expand one of the sealing elements into the other in a radial direction.

Alternatively, the present invention provides a sealing force along an axial direction by using the mechanical advantage of a solid flat wedge to drive a flat support surface to drive the sealing surfaces together. As recited in the independent claims, the claimed invention provides a planar support surface and a wedge opening having two parallel openings. Insertion of the wedge against the flat planar support surface drives one connection member axially into the other. The idea of using parallel wedge openings or planar support surfaces is not taught or contemplated by the cited reference, which instead relies on flexible wedges to traverse around the circumference of one of the connection elements through non-parallel wedge openings. Accordingly, as *Alvis* fails to teach each and every element recited in the independent claims, Applicant respectfully submits that Claims 1, 15-23, 26 and 30-34 and all claims depending therefrom are in a condition for allowance.

Rejection of Claim 24 under 35 U.S.C. §103

The Examiner also rejected Claim 24 under 35 U.S.C. § 103(a) over U.S. Patent No. 3,500,001 ("*Alvis*") to U.S. Patent 6,343,813 ("*Olsen, et al.*"). For the reasons set forth above, Applicant submits that Claim 24 is in a condition for allowance/

Rejection of Claims 1, 15-23 and 25-34 under 35 U.S.C. §103

The Examiner next rejects Claims 1, 15-23 and 25-34 under 35 U.S.C. § 103 over U.S. Patent No. 5,513,882 ("*Lewis*") in view of U.S. Patent No. 3,384,393 ("*Horton*"). Applicant traverses this rejection.

Lewis generally discloses a pipe connector that includes a clip 18 for securing one element 13 against another element 10. The clip 18, however, is not a wedge clamping element and therefore, the flange 11 of element 10 is not pressed against the shoulder 16 of element 13. (*See* column 5, lines 56-column 6, line 50). Instead, the clip 18 is a flat element having parallel, non-wedge surfaces, that merely position flange 11 within engagement of O-ring 14, but do not clamp the elements together. In fact, the only conceivable portion of *Lewis* asserted to be a wedge is the tips of clip 18. However, such surfaces are not designed to and do not effectuate any wedge clamping force whatsoever. This portion of the clip 18 does not press the elements together, and instead merely acts as a starting place for insertion of the clip 18 into its respective opening. Accordingly, the disclosure of *Lewis* does not

provide any teaching or any motivation to not only drive one element into sealing engagement with the other, but also to teach any device or system for locking the sealing elements into their sealed engagement. As can be seen, Lewis is not concerned with ensuring that the lock tight seal is formed between the two elements.

The other reference cited by the Examiner, Horton, is also not concerned with forming a lock tight seal between two elements. The invention embodied in Horton involves a connector for electrical junction boxes for the electrical wiring of a building. Typically, electrical wiring is fairly stationary and is therefore not subject to the difficulties and problems associated with vibration. More specifically, small separation between connecting elements in wiring, caused by one of the connecting elements separating from the other, does not necessarily create problems. Accordingly, Horton fails to teach several elements of the claimed invention that do perform this sealed engagement. For example, Horton does not teach the idea of a locking mechanism that ensures that the connecting elements do not come apart. Horton also fails to teach that the sealing elements are adapted to connect fluid lines. In fact, Horton does not even show two connecting fluid lines and instead deals with connecting a tubular elements or other such element to a flange or wall. Horton also fails to recite many other claim components presented by applicants that help ensure a fluid tight seal.

Alternatively, the claimed invention provides a wedge device that is adapted to contact an inclined surface to effectuate sealing. The claimed intervention also provides a locking mechanism to insure that the wedge member does not become loose, thereby compromising the fluid seal. Accordingly, for the reasons set forth above, Applicant submits that independent Claims 1, and 28-30 and all claims depending therefrom are in a condition for allowance.

CONCLUSION

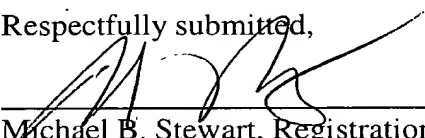
For at least these reasons, this application is now in condition for allowance. It is believed that any additional fees due with respect to this paper have already been identified in any transmittal accompanying this paper.

However, if any additional fees are required in connection with the filing of this paper that are not identified in any accompanying transmittal, permission is given to charge account number 18-0013 in the name of Rader, Fishman and Grauer PLLC.

If the Examiner has any questions or comments, she is kindly urged to call the undersigned to facilitate prosecution.

Respectfully submitted,

Date: December 30, 2003



Michael B. Stewart, Registration No. 36,018
Michael R. Bascobert, Registration No. 44,525
Rader, Fishman and Grauer PLLC
39533 Woodward Ave., Suite 140
Bloomfield Hills, Michigan 48304
(248) 594-0650
Attorneys for Applicants
Customer No. 010291

248-594-0633

Fig.1

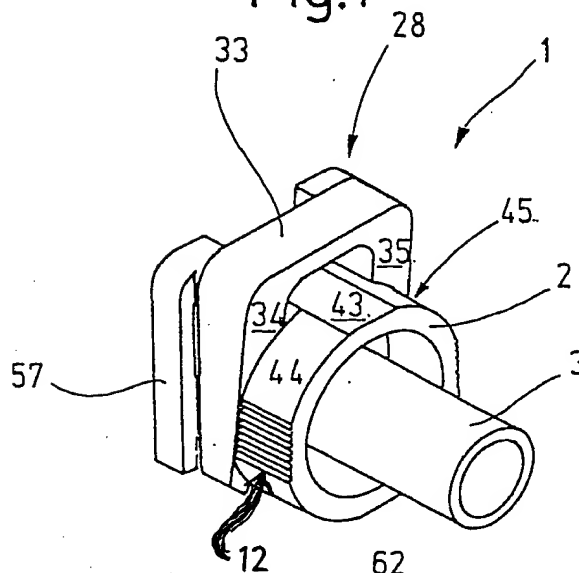


Fig.2

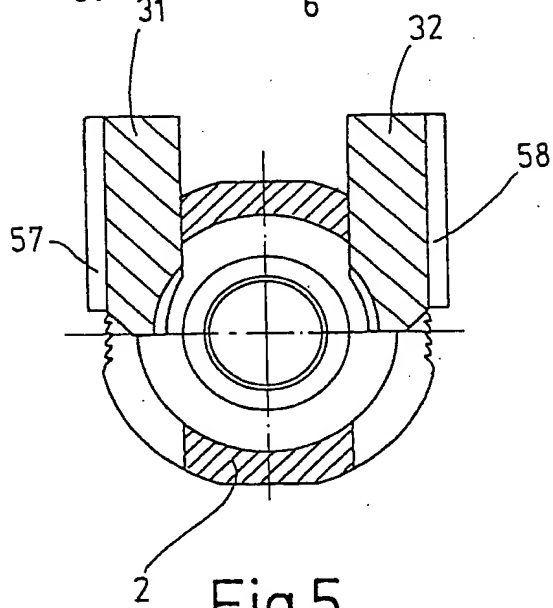
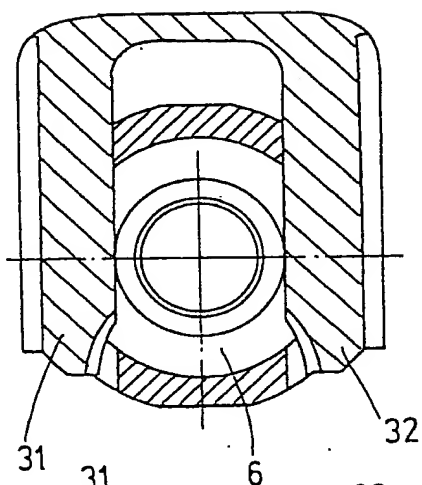


Fig.5

Fig.4

